



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

MAY 21 2014

Michelle Morin
Chief, Environment Branch for Renewable Energy
Environmental Division
Bureau of Ocean Energy Management
381 Elden Street
Mail Stop 1328
Herndon, VA 20170

Re: ESA Consultation for Cape Wind

Dear Ms. Morin,

Enclosed is an amended Incidental Take Statement (ITS) for the biological opinion (Opinion), issued by us on December 30, 2010, under Section 7(a)(2) of the Endangered Species Act (ESA), to the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEM) regarding the proposed construction, operation and future decommissioning by Cape Wind Associates, LLC of a wind energy project on Horseshoe Shoal in federal waters of Nantucket Sound, Massachusetts. While BOEM is the lead Federal agency for the section 7 consultation, the U.S. Army Corps of Engineers, Environmental Protection Agency and the Department of Energy also have a role in authorizing or funding the action. We will be sending a copy of this letter and amended ITS to those agencies as well.


The amended ITS is being issued in response to the decision by the Federal district court in Public Employees for Environmental Responsibility et al., v. Beaudreau et al., 1:10-cv-01067-RBW (D.D.C., March 14, 2014). The amended ITS adds a new section entitled "ESA Listed Marine Mammals." It indicates that we do not anticipate any incidental take of North Atlantic right whales, fin whales and humpback whales and that the amount or extent of incidental take is set at zero. If there is any incidental take of North Atlantic right whales, humpback whales or fin whales, we will consider the specified amount or extent of incidental take to be exceeded, and, pursuant to 50 CFR §402.14(h)(4) and 50 CFR §402.16(a), consultation must be reinitiated immediately. The amended ITS includes Reasonable and Prudent Measures and implementing Terms and Conditions necessary and appropriate for monitoring and reporting any incidental take of listed whales. These measures are consistent with monitoring and reporting requirements included as part of the proposed action we analyzed in the 2010 Opinion and the measures required by the lease you issued to Cape Wind on November 1, 2010. As required in those documents, any interactions with ESA listed whales must be reported to NMFS within 24 hours.



The amended ITS still includes the measures required to minimize, monitor, and report any take of sea turtles.

We look forward to continuing to work cooperatively with your office to minimize the effects of energy projects on listed species in the northeast region. For further information regarding any consultation requirements, please contact Julie Crocker at (978)282-8480 or by e-mail (Julie.Crocker@noaa.gov). Thank you for working cooperatively with my staff throughout this consultation process.

Sincerely,


for John K. Bullard
Regional Administrator

cc: Lewandowski- BOEM
McDonnell – EPA R1
Adams – ACOE
McMillan – DOE

File Code: Section 7 MMS/BOEM Cape Wind Nantucket
PCTS: NER-2010-3866

MAY 21 2014

INCIDENTAL TAKE STATEMENT- Amended

[NOTE: We have prepared this amended Incidental Take Statement in response to the decision of the Federal district court in Public Employees for Environmental Responsibility (PEER) et al., v. Beaudreau et al., 1:10-cv-01067-RBW (D.D.C., March 14, 2014) and the particular circumstances of that court's remand order.]

Section 9 of the ESA prohibits the take of endangered species. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. NMFS interprets the term "harm" as an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding or sheltering (50 CFR §222.102). Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. The term "harass" has not been defined by NMFS; however, it is commonly understood to mean to annoy or bother. In addition, legislative history helps elucidate Congress' intent: "[take] includes harassment, whether intentional or not. This would allow, for example, the Secretary to regulate or prohibit the activities of birdwatchers where the effect of those activities might disturb the birds and make it difficult for them to hatch or raise their young" (HR Rep. 93-412, 1973). Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited under the ESA provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

Amount or Extent of Incidental Take

Sea Turtles

The proposed action has the potential to directly affect loggerhead, Kemp's ridley, green and leatherback sea turtles by causing them to be exposed to potentially harassing levels of sound during pile driving and the high resolution geophysical survey. As explained in the "Effects of the Action" section of the accompanying Opinion, only sea turtles located within a 34.56 square km area surrounding the pile being driven will be exposed to noise levels between 160 and 180 dB. As explained on page 90 of the "Effects of the Action" section, NMFS has estimated that between 3 and 7 sea turtles are likely to be exposed to disturbing levels of noise during each 4 hour pile driving event. As pile driving will occur for approximately four to six hours per pile over a period of approximately eight months, the potential for exposure will be limited to that time period only. As explained in the "Effects of the Action" section, during the high resolution geophysical survey program, any sea turtles located within 227 meters from the chirp and 386 meters from the boomer will be exposed to noise levels between 160 and 180 dB. During the survey, an area of approximately 148 square kilometers will be surveyed. Based on the estimates of sea turtle density in the action area (explained on page 90), NMFS estimates that between 13 and 28 sea turtles would be exposed to disturbing levels of noise during the survey. At any given time during the survey, an approximately 0.384 square kilometer area will have noise levels between 160 and 180 dB.

Exposure of sea turtles to sound levels greater than 160 dB will be considered harassment

because that level of noise will disturb sea turtles and their normal behaviors (i.e., resting, foraging or migrating through the area) will be interrupted. Any sea turtles located within 3.4km of the pile being driven will be exposed to these disturbing noise levels and are likely to exhibit avoidance behavior which would cause the alteration of normal behaviors. As loggerhead, Kemp's ridley, green and leatherback sea turtles are likely to be present in the action area and exposed to potentially harassing sound levels, harassment of any of these species could occur and NMFS anticipates that the 3-7 sea turtles exposed to harassing noise levels during each pile driving event and the 13-28 sea turtles exposed to harassing levels of noise during the geophysical survey will be a combination of these species. As sea turtles are only likely to occur in the action area between June and November, only pile driving occurring during these months will result in the harassment of sea turtles. Similarly, effects to sea turtles from the high resolution geophysical survey would only occur if the survey took place between June and November. Incidental take via harassment will be limited to the spatial and temporal extent indicated above.

NMFS believes this level of incidental take is reasonable given the likely seasonal distribution and abundance of sea turtles in the action area and the modeling results provided by BOEM in the BA and DEIS. In the accompanying biological opinion, NMFS determined that this level of anticipated take is not likely to result in jeopardy to these species. As explained above, any incidental take of loggerhead, Kemp's ridley, green and leatherback sea turtles will be limited to: the time period when pile driving is occurring and be limited to a 34.56 square kilometer area surrounding the pile being driven and the time period when the high resolution geophysical survey is occurring and be limited to a 0.384 square kilometer area at any given time during the survey.

ESA Listed Marine Mammals

As defined in the NMFS/FWS Endangered Species Consultation Handbook, a "not likely to adversely affect" determination "is the appropriate conclusion when effects on listed species are expected to be discountable, insignificant, or completely beneficial. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur" (page xiv-xv). As explained in the "Effects of the Action" and "Conclusion" sections of the accompanying Opinion, we determined that all effects to North Atlantic right whales, humpback whales and fin whales will be insignificant and discountable. As a result, we concluded that the proposed action may affect, but is not likely to adversely affect, these species and that incidental take is unlikely to occur. In situations in which NMFS does not consider take to be reasonably likely to occur, the Consultation Handbook advises NMFS to state that it does not anticipate any take (page 4-48). Consequently, in light of the Biological Opinion's analysis of, and conclusions about, the effects of the proposed action on listed whales, NMFS does not anticipate the proposed action will incidentally take any North Atlantic right whales, humpback whales or fin whales. In addition, given the PEER court's order to issue an Incidental Take Statement that addresses what number of takes would trigger reinitiation of consultation, and in light of the accompanying Biological Opinion, we are specifying that the amount of incidental take of right whales, humpbacks, and fin whales anticipated is zero. If there is any incidental take of North Atlantic right whales, humpback whales or fin whales, we will consider the

specified amount or extent of incidental take to be exceeded, and, pursuant to 50 CFR §§ 402.14(i)(4) and 402.16, consultation must be reinitiated immediately.

Reasonable and Prudent Measures and Terms and Conditions

Reasonable and Prudent Measures for ESA Listed Marine Mammals

We are not requiring any reasonable or prudent measures or terms and conditions to minimize take of right whales, humpback whales or fin whales. This is because we do not anticipate any incidental take of these whale species; therefore, there is no amount or extent of incidental take to minimize and no Reasonable and Prudent Measures to minimize take of these species are necessary or appropriate.

We have considered whether there is sufficient monitoring in place to allow us to know if take does occur. As discussed in the Opinion, several monitoring requirements are part of the proposed action. These measures are included as requirements of the lease granted to Cape Wind on November 1, 2010.¹ Specific to whales, Cape Wind is required to post a look out on all vessels associated with the project. This lookout must be on watch for whales and be in direct communication with the vessel captain so that if a whale is spotted, speed can be reduced and whales can be avoided. Part 9(1)(b)(ii) of the lease requires compliance with Notice to Lessee's (NTL) 2007-GO4 which requires reporting of any strikes of marine mammals to BOEM and NMFS within 24-hours. In the unanticipated event that a whale is struck, the incident must be reported to BOEM and NMFS within 24 hours. The combination of the dedicated lookout and the reporting requirement ensures that if a whale is struck by a project vessel, we would be promptly informed and consultation could be reinitiated. Dedicated observers are also required during the geophysical surveys and during pile driving. While we do not anticipate listed whales will be in the exclusion zone at the time the survey equipment is operating or pile driving is taking place, if project personnel do observe one or more, they must communicate those observations and initiate shut down provisions. Although the accompanying Opinion explains that listed whales are extremely unlikely to be in the action area, the requirement to monitor the Right Whale Sightings Advisory System (<http://www.nefsc.noaa.gov/psb/surveys/>) is an important complement to observing the exclusion zones. Monitoring the Right Whale Sightings Advisory System would enable project personnel to know if right whales have been sighted in the action area, including beyond the exclusion zones. All observations of protected species must be promptly reported to NMFS and all observations of injured or dead animals must be reported within 24 hours. Reporting of injured or dead whales is required during pile driving, the jet plow operations for cable laying, and the geophysical surveys by Section 9(1)(f), 9(1)(k), and 9(1)(l) of Addendum C of the lease document. We have determined that these monitoring and reporting measures are sufficient to allow us to know when a take occurs; no other monitoring and reporting requirements are necessary or appropriate. Therefore, in order to ensure that any unanticipated incidental take of whales is detected and reported, the following monitoring and reporting measures are required by this ITS:

1. BOEM and Cape Wind Associates must ensure that lookouts are posted on all project related vessels, including the geophysical survey vessels and the cable laying vessel, to monitor for the presence of whales and to communicate with the captain to slow down

¹ Lease document available at:

http://www.boem.gov/uploadedFiles/BOEM/Renewable_Energy_Program/Studies/CapeWind_signed_lease.pdf

- and avoid any whales that are sighted.
2. BOEM and Cape Wind Associates must ensure that observers are present during the geophysical surveys to monitor for the presence of whales.
 3. BOEM and Cape Wind Associates must ensure that observers are present during pile driving to monitor for the presence of whales.
 4. BOEM and Cape Wind Associates must ensure that any observations of whales are reported to NMFS.

The following Terms and Conditions are required to implement the above monitoring and reporting measures. All of these Terms and Conditions are consistent with measures already part of the action considered in the Biological Opinion and required by the lease issued to Cape Wind.

1. To implement RPM #1, BOEM and Cape Wind must ensure that the Right Whale Sightings Advisory System is monitored by project personnel prior to leaving port each day. Information on right whale sightings is available at:
<http://www.nefsc.noaa.gov/psb/surveys/>
2. To implement RPM #1, BOEM and Cape Wind must ensure that a look out is posted on all vessels associated with the project. This lookout must be on watch for whales and be in direct communication with the vessel captain so that if a whale is spotted, speed can be reduced and whales can be avoided.
3. To implement RPM#1, BOEM and Cape Wind must ensure that if whales are sighted, vessel operators comply with all vessel strike avoidance measures outlined in BOEM Notice to Lessees No. 2012-G01, NMFS' regulations for approach and avoidance of right whales (50 CFR §224.103(c)), and NMFS' Northeast Regional Viewing Guidelines.
4. To implement RPM #2, BOEM and Cape Wind must ensure that observers begin monitoring at least 60 minutes prior to soft start of the pile driving. Pile driving must not begin until the zone is clear of all listed whales for at least 60 minutes. Monitoring will continue through the pile driving period and end approximately 60 minutes after pile driving is completed.
5. To implement RPM #3, BOEM and Cape Wind must ensure that observers begin monitoring at least 60 minutes prior to the start of the high resolution geophysical survey. The survey must not begin until the zone is clear of all listed whales for at least 60 minutes. Monitoring will continue through the survey period and end approximately 60 minutes after the survey is completed.
6. To implement RPM#4, BOEM and Cape Wind must ensure that all observations of listed whales are reported to NMFS within 3 days. All reports must be submitted via e-mail (incidental.take@noaa.gov) and must include the following information: (a) date and time of observation; (b) species identification; (c) location of whale and location of observer/lookout documenting the sighting; (d) any notes on the behavior of the animal(s); and, (e) description of project operations at the time of the observation.

7. To implement RPM#4, BOEM and Cape Wind must ensure that any interactions with listed whales, including a ship strike, and/or any observations of injured or dead whales, regardless of whether the injury or death was caused by project operations, must be reported via e-mail to NMFS within 24 hours (incidental.take@noaa.gov) and must include the following information: (a) date and time of observation; (b) species identification; (c) location of whale and location of observer/lookout documenting the sighting; (d) any notes on the behavior of the animal(s) and, (e) description of project operations at the time of the observation. Additionally, any interactions with listed whales or observations of injured or dead whales, must be reported as soon as practicable to NMFS' Northeast Regional Hotline (866-755-6622).

These monitoring and reporting measures and their implementing terms and conditions ensure that if the incidental take of a whale were to occur during any project activity, it will be detected and we will be notified so that consultation can be reinitiated. No other monitoring or reporting requirements are necessary.

Because take of North Atlantic right whales, humpback whales or fin whales is not anticipated, no take authorization for these species is required under the Marine Mammal Protection Act for purposes of this ITS. Although we do not anticipate any take of listed marine mammals, the MMPA Incidental Harassment Authorization issued to Cape Wind for the proposed High Resolution Geophysical Survey (79 *Federal Register* 25835-25844, May 6, 2014) will require CWA to abide by certain mitigation measures to further reduce the risk of taking marine mammals. Those measures include: establishment of an exclusion zone; shut down and delay procedures; soft-start procedures; monitoring of the exclusion zone; and reporting of all observations of marine mammals.

Reasonable and Prudent Measures for Sea Turtles

Reasonable and prudent measures are those measures necessary and appropriate to minimize and monitor incidental take of a listed species. These reasonable and prudent measures are in addition to the mitigation measures proposed by BOEM and agreed to by Cape Wind that will become a part of the proposed action (see Appendix A of the accompanying Biological Opinion). NMFS believes the following reasonable and prudent measures are necessary and appropriate to minimize and monitor impacts of incidental take of sea turtles:

1. BOEM must ensure that any endangered species monitors contracted by Cape Wind are approved by NMFS.
2. During the conduct of pile driving activities related to turbine monopile and Electrical Service Platform (ESP) installation, the 750 meter exclusion zone must be monitored by a NMFS-approved endangered species monitor for at least 60 minutes prior to pile driving.
3. During the conduct of the high resolution geophysical survey, the 500 meter exclusion zone must be monitored by a NMFS-approved endangered species monitor for at least 60 minutes prior to the survey.
4. Acoustic measurement of the first pile being driven must be conducted to confirm the

sound levels modeled by BOEM and reported in the BA.

5. Prior to decommissioning, BOEM must provide to NMFS a complete plan for decommissioning activities.

Terms and conditions to implement RPMs for Sea Turtles

In order to be exempt from prohibitions of section 9 of the ESA, BOEM must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and which outline required minimization and monitoring requirements. These terms and conditions are non-discretionary.

1. To implement RPM #1, BOEM shall provide NMFS with the names and resumes of all endangered species monitors to be employed at the project site at least 30 days prior to the start of construction. No observer shall work at the project site without written approval of NMFS. If during project construction or operations, additional endangered species monitors are necessary, BOEM will provide those names and resumes to NMFS for approval at least 10 days prior to the date that they are expected to start work at the site.
2. To implement RPM #2, observers must begin monitoring at least 60 minutes prior to soft start of the pile driving. Pile driving must not begin until the zone is clear of all sea turtles for at least 60 minutes. Monitoring will continue through the pile driving period and end approximately 60 minutes after pile driving is completed.
3. To implement RPM #2 and #3, adequate lighting must be provided on all vessels used for endangered species observation to ensure that observers can monitor the exclusion zone for listed sea turtles. If sufficient lighting can not be provided, activities must be limited to daylight hours.
4. To implement RPM #3, observers must begin monitoring at least 60 minutes prior to the start of the high resolution geophysical survey. The survey must not begin until the zone is clear of all sea turtles for at least 60 minutes. Monitoring will continue through the survey period and end approximately 60 minutes after the survey is completed.
5. To implement RPM #4, acoustic monitoring must be conducted to verify that sound levels at 3.4km from the pile being driven is less than 160 dB. Results of this monitoring must be reported to NMFS prior to the driving of any subsequent piles.
6. To implement RPM #5, if the project is to be decommissioned, BOEM must provide a complete decommissioning plan and analysis of effects on listed species to NMFS. NMFS would then review the plan to determine if reinitiation of this consultation is necessary.

The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize and monitor the impact of incidental take that might otherwise result from

the proposed action. Specifically, these RPMs and Terms and Conditions will ensure that no listed species are exposed to injurious levels of sound and will verify the modeling results provided by BOEM based on which NMFS has made conclusions regarding take.

RPM and Term and Condition #1 is necessary and appropriate because it is specifically designed to ensure that all endangered species monitors employed by the applicant are qualified to conduct the necessary duties. Including this review of endangered species monitors by NMFS staff is only a minor change because it is not expected to result in any delay to the project and will merely enforce the qualifications of the endangered species monitors that are already required by BOEM.

RPM and Term and Condition #2 as well as RPM#3 and Term and Condition #4 are necessary and appropriate to provide adequate monitoring by extending the time that monitoring of the exclusion zone must occur from the 30 minutes required by BOEM to 60 minutes. The normal duration of sea turtle dives ranges from 5-40 minutes depending on species, with a maximum duration of 45-66 minutes depending on species (Spotila 2004). As sea turtles can stay submerged for longer than 30 minutes, but typically surface at least every 60 minutes, it is reasonable to require that monitoring occur for at least 60 minutes to allow the endangered species monitor to detect any sea turtles that may be submerged in the exclusion zone. Increasing the time to 60 minutes is only a minor change because the observer will be on location already and an additional 30 minutes of observation is not expected to result in any effects to the project schedule. Term and Condition #3 is necessary and appropriate to provide adequate monitoring of the exclusion zone as if lighting is poor the endangered species monitors will not be able to effectively survey the exclusion zone. Requiring adequate lighting is only a minor change because the vessels will already have some lighting and the addition of extra lighting is not expected to be more than a minor cost and not cause any delay of the project. If sufficient lighting can not be provided and activities must be curtailed during the dark, the delay in project schedule will be only a few hours and this is not expected to result in more than a minor cost and minor effect on overall project schedule.

RPM #4 and Term and Condition #5 are necessary and appropriate because they are designed to verify that the sound levels modeled by BOEM are valid and that the 3.4km zone where sound levels are expected to be greater than 160dB is accurate. This RPM and Term and Condition does not cause more than minor changes because Cape Wind is already required by BOEM to conduct monitoring of underwater sound levels associated with the driving of the first three piles. These measurements must be taken at 100m, 500m and 750m in two directions either west, east, south or north of the pile driving site. The addition of one additional monitoring site for one pile driving event will not cause delays to the project or add a significant cost. RPM #5 and Term and Condition #6 is necessary and appropriate as way to help monitor the proposed action and incidental take by ensuring that the effects of any decommissioning activities on listed species have been adequately analyzed. As it is impossible to predict the exact decommissioning scenario and the status of listed species at the time of decommissioning it is necessary to review the decommissioning plan when it is developed.

These RPMs and Terms and Conditions in conjunction with the mitigation measures proposed by BOEM and agreed to by Cape Wind that will become a part of the proposed action will serve to

minimize and monitor incidental take of listed species.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. NMFS has determined that the proposed action is not likely to jeopardize the continued existence of any listed species. To further reduce the adverse effects of the proposed actions, NMFS recommends that BOEM work with the applicant, Cape Wind Associates, to implement the following conservation recommendations.

1. To the extent practicable, pile driving should be minimized during the June – October timeframe when sea turtles are expected to occur in the action area.
2. As there is limited data on use of Nantucket Sound by listed sea turtles, BOEM and/or Cape Wind should support additional survey effort. This could include aerial surveys of the action area specifically targeting sea turtles.

REINITIATION OF CONSULTATION

This concludes formal consultation with BOEM, ACOE and EPA regarding the proposed construction, operation and future decommissioning by Cape Wind Associates LLC of a wind energy project on Horseshoe Shoal. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) a new species is listed or critical habitat designated that may be affected by the action; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered.